UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,404	07/18/2003	Tien Le Nguyen	AESN3011	4145

23488	7590	05/04/2006

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EXAMINER
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ART UNIT	PAPER NUMBER
2195	

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/622,404	NGUYEN ET AL.
	Examiner	Art Unit	
	Lilian Vo	2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _02 February 2006_.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1 – 20, 22 – 27, 29 – 31 and 33 - 36_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1 – 20, 22 – 27, 29 – 31 and 33 - 36_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____.

        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date ~~04282006~~ 2/2/06

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1 – 20, 22 – 27, 29 – 31 and 33 - 36 are pending. Claims 21, 28 and 32 have been

cancelled.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   Claims 1 – 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawata et al.

(US Pat. Publication 2002/0032777, hereinafter Kawata) in view of Primak et al. (US Pat.

Publication 2002/0010783, hereinafter Primak).

4.   Regarding **claim 1**, Kawata discloses a method of cooperatively loud-balancing a cluster

of server computer systems for servicing client requests issued from a plurality of client

computer systems, wherein said client computer systems are mutually independent in issuing

client requests to said cluster of server computer systems and wherein said cluster of server

computer systems interoperate with said plurality of client computer systems to establish a

cooperative load-balancing of said cluster of server computer systems (page 1, paragraph 3, page

2, paragraphs 38 - 40), said method comprising the steps of:

a) selecting, by a client computer system, a target server computer system from said

cluster of server computer systems to service a particular client request using available

accumulated selection basis data, wherein said available accumulated selection basis data is

accumulated from said cluster of server computer systems (page 1, paragraph 3: the client looks

at the load status for each server in the state management server and sends its service request to

the server with the lowest load);

b) evaluating said particular client request to responsively provide instance selection

basis data dynamically dependent on the configuration of said target server computer and said

particular client request (page 2, paragraphs 38 - 40); and

c) incorporating said instance selection basis data into said available accumulated

selection basis data to affect the subsequent selection of said target computer system with respect

to a subsequent instance of said particular client request (page 2, paragraphs 40 - 41).

Kawata did not disclose the target server evaluates the client request. Nevertheless,

Primak discloses the selected server evaluates the client's request (page 4, paragraph 40).

Therefore, it would be obvious for one of an ordinary skill in the art, at the time of the invention

was made, to incorporate Primak's teaching with Kawata's to have the selected server evaluates

its capability to determine whether it is suitable to handle a client's request.

5.   Regarding **claim 2**, as modified Kawata discloses the instance selection basis data

includes representation of a dynamically determined performance level of said target server

computer system and wherein said available accumulated selection basis data incorporates said

instance selection basis data with identifications of said target server computer and said

particular client request (Kawata: page 2, paragraphs 38 - 41).

6.   Regarding **claim 3**, as modified Kawata discloses the instance selection basis data

includes a representation of a policy evaluation of the particular client request relative to the

target server computer system (Kawata: abstract, page 1, paragraph 7).

7.   Regarding **claim 4**, as modified Kawata discloses the instance selection basis data

includes a load value and a selection weighting value, wherein the load value represents a

dynamically determined performance level of the target server computer system and the selection

weighting value represents a policy evaluation of the particular client request relative to the

target server computer system and wherein the available accumulated selection basis data

incorporates the instance selection basis data with identifications of the target server computer

and the particular client request (Kawata: page 2, paragraphs 38 – 41, page 1, paragraphs 6 – 7

and 10).

8.   Regarding **claim 5**, as modified Kawata discloses the step of selecting selects the target

server computer system based on predetermined selection criteria including the relative values of

the load value and the selection weighting value with respect to said particular client request as

recorded in the available accumulated selection basis data (Kawata: page 2, paragraphs 38 – 41,

page 1, paragraphs 6 – 7 and 10).

9.   Regarding **claim 6**, as modified Kawata discloses the instance selection basis data

provides for a rejection of the particular client request and wherein the step of selecting includes

selecting an alternate server computer system from the cluster of server computer systems on the

target server system to service the particular client request based the available accumulated

selection basis data (Primak: page 4, paragraph 40).

10.   Claims 7 – 19, 25 – 27 and 29 – 30 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Mangipudi et al. (US Pat. Application Publication 2004/0162901, hereinafter

Mangipudi) in view of Kawata et al. (US Pat. Publication 2002/0032777).

11.   Regarding **claim 7**, Mangipudi discloses a method of load-balancing a cluster of server

computer systems in the cooperative providing of a network service to host computers operating

mutually independent of one another, the method comprising the steps of:

        a) selecting, independently by each of a plurality of host computers, server computers

within a computer cluster to which to issue respective service requests (page 2, paragraph 18,

page 4, paragraph 38, page 5, paragraph 44, fig. 2);

        b) responding, by a corresponding one of the plurality of host computers, to the rejection

of a predetermined service request by selecting a different server computer to which to issue the

predetermined service request (page 6, paragraph 51, page 7, paragraph 62);

        c) receiving, in regard to the respective service requests by the respective ones of the

plurality of host computers, load information from the respective server computers, wherein load

information is dynamically generated by respective server computers (pages 2 - 3, paragraph 18); and

 d) evaluating, by each of the plurality of host computers, the respective load and weight information received with respect to server computers of the computer cluster as a basis for a subsequent performance of the step of selecting (pages 2 - 3, paragraph 18, 21, page 5, paragraph 44).

 Mangipudi did not clearly disclose the use and retrieval of weight information from the servers. Nevertheless, Kawata discloses the receiving of weight information from the server through load-balancing in selecting a particular server (page 3, paragraph 55 and page 4, paragraph 59). Thus, it would have been obvious for one of an ordinary skill in the art, at the time the invention was made, to incorporate Kawata's teaching together with Mangipudi so that the information can be used in selecting an appropriate server to provide a sufficient service.

12. Regarding **claim 8**, as modified Mangipudi discloses the step of determining said weight information by each of said server computers with respect to each service request received, said weight information being determined from a predefined policy association between a received service request and the identity of the one of said server computers that receives the service request (Kawata: page 3, paragraph 55 and page 4, paragraph 58- 59).

13. Regarding **claim 9**, as modified Mangipudi discloses the step of distributing initial information by said cluster of server computers of said host computers, said initial information

providing selection lists of said server computers to said host computers (Mangipudi: page 3,

paragraph 21).

14.   Regarding **claim 10**, as modified Mangipudi discloses the load information is

representative of a plurality of load factors including network loading and processor loading

(Mangipudi: page 3, paragraph 18, 21).

15.   Regarding **claim 11,** as modified Mangipudi discloses the load information is

representative of the processing of a current set of service requests including a plurality of

processor functions (Mangipudi: page 5, paragraph 44, page 6, paragraph 47, 50, 51).

16.   Regarding **claim 12,** as modified Mangipudi discloses the load information includes one

or more load values representing processing functions internal to a server computer (Mangipudi:

page 6, paragraph 51, page 7, paragraph 57).

17.   Regarding **claim 13,** Mangipudi discloses a server cluster operated to provide a load-

balanced network service, the server cluster comprising:

a) a plurality of server computers individually responsive to service requests to perform

corresponding processing services, wherein said server computers are operative to initially

respond to said service requests to provide load values, wherein said load values represent the

current operating load of a respective server computer relative to a particular service request

(page 3, paragraph 21, 24, page 4, paragraph 38, page 5, paragraph 44, page 6, paragraph 47, 51,

55, 56 and page 7, paragraph 57); and

        b) a host computer system operative to autonomously issue the service requests

respectively to the plurality of server computers, the host computer system further operative to

select a target server computer from the plurality of server computers to receive on instance of

the particular service request based on the load and weight values (page 2, paragraph 18, page 4,

paragraph 38, page 5, paragraph 44, fig. 2).

        With respect to the step of a plurality of server computers individually responsive to

service requests to perform corresponding processing services, wherein the server computers are

operative to initially respond to said service requests to provide load values, Mangipudi discloses

"each request is serviced by transmitting a response from at least one servers to the client device

that transmitted the request. Each server in the group or cluster is capable of responding to

requests of other servers in the group to promote load sharing within the group" (page 5,

paragraph 44) and the intelligent agents deployed on each server monitor several server

attributes/parameters including the load information and report back to the policy engine at the

router for maintaining service level requirements for each class (page 5, paragraph 55).

Mangipudi did not clearly disclose the use and retrieval of weight information which represent

a policy-based priority level of a respective server computer relative to a particular service

request. Nevertheless, Kawata discloses the receiving of weight information from the server

through load-balancing in selecting a particular server (page 3, paragraph 55 and page 4,

paragraph 59). Thus, it would have been obvious for one of an ordinary skill in the art, at the

time the invention was made, to incorporate Kawata's teaching together with Mangipudi so that

the information can be used in selecting an appropriate server to provide a sufficient service.

18.   Regarding **claim 14**, as modified Mangipudi discloses the host computer is operative to

collect the load and weight values from the plurality of server computers in connection with the

issuance of respective service requests to the server computers and the selection of the target

server computer is based on the relative temporal age of the load and weight values (Mangipudi:

page 2, paragraph 18, page 5, paragraph 44, page 6, paragraph 55. Kawata: page 3, paragraph 55

and page 4, paragraph 59).

19.   Regarding **claim 15**, as modified Mangipudi discloses each of the server computers

include a policy data set store that provides for the storage of a distinct server configuration and

the load and weight values are dynamically determined by the server computers in response to

the service requests based on the distinct server configurations of the server computers

(Mangipudi: page 4, paragraph 38, page 5, paragraph 44, page 7, paragraph 59, 60. Kawata:

page 3, paragraph 55 and page 4, paragraph 59).

20.   Regarding **claim 16**, as modified Mangipudi discloses the distinct server configurations

include the distinct identities of the server computers (Mangipudi: page 4, paragraph 38, page 6 –

7, paragraph 56).

21.   Regarding **claim 17**, as modified Mangipudi discloses the distinct server configurations

include distinct policy data relative to the service requests, wherein the host computer system is

operative to collect, relative to respective service requests, and provide attribute data to server

computers, and wherein the server computers evaluate the attribute data in conjunction with the

distinct policy data to determine the weight values (Mangipudi: page 4, paragraph 38, page 6,

paragraph 55, page 7, paragraph 60 – 62. Kawata: page 3, paragraph 55 and page 4, paragraph

59).

22.   Regarding **claim 18**, as modified Mangipudi discloses the plurality of sever computers

implement a security processing service, wherein the host computer system is operative to

selectively route network transported data through the server computers dependent on the service

requests as evaluated by the plurality of the server computers (Mangipudi: fig. 4, page 4,

paragraph 40, page 5, paragraph 44, 45).

23.   Regarding **claim 19**, as modified Mangipudi discloses the host computer is operative to

initiate respective data transfer transactions for each of the server requests, wherein the default

routing of each data transaction initially provides for the transfer of corresponding ones of the

service requests to respective ones of the plurality of server computers, and wherein the

respective ones of the server computers determine whether the subsequent routing of network

data within the respective data transfer transactions includes routing the network data within the

respective data transfer transactions through the server computers (Mangipudi: page 4, paragraph

38, 39, page 6, paragraph 51, page 7, paragraph 62, page 5, paragraph 44).

24.   **Claims 25 – 27 and 29** are rejected on the same ground as stated in claims 2 and 7 – 9

above.

25.   Regarding **claim 30**, as modified Mangipudi discloses the client requests are issued with

respect to client computer systems, wherein the particular client request includes attributes

descriptive of a particular client computer system that issued the particular client request, and

wherein the relative prioritization reflects the evaluation of the attributes with respect to the

particular server computer system (Mangipudi: page 4, paragraph 38, page 5, paragraph 44, page

6, paragraph 55).

26.   Claims 20, 22 – 24, 31 and 33 - 36 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Mangipudi et al. (US Pat. Application Publication 2004/0162901) in view of

Ballard (US 6,078,960) and further in view of Kawata et al. (US Pat. Publication 2002/0032777).

27.   Regarding **claim 20**, Mangipudi discloses a computer system providing, in support of a

plurality of client computer systems, a network service through a scalable cluster of server

computer systems, the system comprising:

         a) a plurality of server computers coupled to provide a defined service, wherein a server

computer of the plurality provides a response, including dynamically determined load

information, in acknowledgment of a predetermined service request issued to the server

computer system, the response selectively including nonacceptance of the predetermined service request (page 4, paragraph 38, page 6, paragraph 51, page 7, paragraph 62).

Mangipudi did not clearly disclose the additional limitation as claimed. Nevertheless, Ballard discloses the system comprising a plurality of client computers coupleable through a network to the servers having an identification list of the server computer systems, the client computer system being operative to autonomously select a first server computer system from the identification list to which to issue the predetermined service request, wherein the client computer system is reactive to the response, on indicated nonacceptance of the predetermined service request, to autonomously select a second server computer system from the identification list to which to issue the predetermined service request, and wherein the client computer system is responsive to load information of the response in subsequently autonomously selecting the first and second server computer systems (col. 1, lines 46 – 56, col. 2, lines 11 – 28, col. 6, lines 52 - 64). Kawata discloses the receiving of weight information from the server through load balancing in selecting a particular server (page 3, paragraph 55 and page 4, paragraph 59). Thus, it would have been obvious for one of an ordinary skill in the art, at the time the invention was made, to incorporate Ballard's and Kawata's teachings together with Mangipudi's system to provide a more reliable and flexible technique for achieving load balancing of client demand (Ballard: col. 1, lines 39 – 41).

28.   Regarding **claim 22**, as modified Mangipudi discloses the plurality of server computer

systems include respective policy engines and wherein the weight information reflects an

association between a server computer policy role and the predetermined service request

(Mangipudi: page 3, paragraph 21. Kawata: page 3, paragraph 55 and page 4, paragraph 59).

29.   Regarding **claim 23**, as modified Mangipudi discloses the predetermined service request

includes predetermined client process attribute information and wherein the respective policy

engines are responsive to the predetermined client process attribute information in determining

the server computer policy role relative to the predetermined service request (Mangipudi: page 4,

paragraph 38, page 5, paragraph 44, page 6, paragraph 55).

30.   Regarding **claim 24**, as modified Mangipudi discloses the load information includes a

value representing network and server processor performance (Mangipudi: page 4, paragraph 39,

page 5, paragraph 47, 48, 50, 55).

31.   **Claim 31** is rejected on the same ground as stated in claim 20 above.

32.   Regarding **claim 33**, as modified Mangipudi discloses the step of selecting includes a

step of aging the accumulated selection information (Ballard: fig. 4a, 4b and col. 2, lines 17 –

28).

33.   **Claim 34** is rejected on the same ground as stated in claim 7 above.

34.   Regarding **claim 35**, as modified Mangipudi discloses the host process is executed on a

client computer system (Ballard: col. 1, lines 44 – 67).

35.   Regarding **claim 36**, as modified Mangipudi discloses the host process is executed on a

gateway computer system couple through a communications network with a plurality of client

computer systems (Mangipudi: figs. 2 and 3).

Response to Arguments

36.   Applicant's arguments with respect to claims 1, 7, 13, 20, 25, 29 and 31 have been

considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Lilian Vo whose telephone number is 571-272-3774. The

examiner can normally be reached on Thursday 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

> Lilian Vo
> Examiner
> Art Unit 2195

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April 29, 2006

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